

FIELD OFFICE TECHNICAL GUIDE: BLACK HILLS TECHNICAL GUIDE
LOCATION:
AREA:
STATE: SOUTH DAKOTA

RANGE SITE DESCRIPTION

RANGE SITE NAME . : HIGH COUNTRY SHALLOW

RANGE SITE NUMBER : 062XY034SD

ORIGINAL DATE ... : 05/13/1992

REVISION DATE ... : 05/13/1992

AUTHOR'S INITIALS : RDB/DWS

* SOIL NARRATIVE:

THESE ARE SHALLOW, WELL DRAINED SOILS THAT FORMED IN MATERIAL WEATHERED FROM LIMESTONE AND CALCAREOUS SANDSTONE. THESE SOILS ARE FOUND IN MOUNTAIN MEADOWS. THE SURFACE TEXTURE IS GRAVELLY SILT LOAM AND THE SUBSURFACE TEXTURE IS VERY GRAVELLY LOAM. PERMEABILITY IS MODERATE.

* LIST OF SOIL TAXONOMIC UNITS OR SOILS MAPPING UNITS FOR ALL SOILS INCLUDED IN THIS SITE:

PAUNSAUGUNT VARIANT

* LANDSCAPE FACTORS

PHYSIOGRAPHY:

ELEVATION/ASPECT:

LOW 3500 ft / HIGH 7200 ft /

PERCENT SLOPE:

LOW 2
HIGH 25

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* CLIMATE FACTORS

FREEZE-FREE PERIOD (FFP): 0 TO 0 (DAYS)
FROST-FREE PERIOD: 111 TO 123 (DAYS)
MEAN ANNUAL PRECIPITATION (MAP): 18 TO 26 (INCHES)
MEAN ANNUAL AIR TEMPERATURE (MAAT): 34 TO 55 (F)
MEAN ANNUAL SOIL TEMPERATURE (MAST): 32 TO 57 (F)

MOISTURE AND TEMPERATURE DISTRIBUTION:

	-JAN---	FEB---	MAR---	APR---	MAY---	JUN---	JUL---	AUG---	SEP---	OCT---	NOV---	DEC---
- PPT -												
HIGH	4.78	4.32	4.79	7.82	15.31	10.02	8.78	7.77	5.08	3.28	6.30	3.51
MEAN	1.13	1.10	1.75	3.10	4.02	4.07	2.56	2.00	1.86	1.47	1.26	1.09
LOW	0.00	0.17	0.52	0.45	0.47	0.81	0.43	0.22	0.04	0.00	0.03	0.19
- TEMP -												
HIGH	33	35	41	51	61	72	81	79	69	58	44	36
MEAN	23	25	30	41	50	60	68	67	57	47	34	27
LOW	14	16	20	30	39	49	56	54	45	36	25	18

* VEGETATION FACTORS - CLIMAX PLANT COMMUNITY

RANGE SITE DESCRIPTION NARRATIVE:

THE POTENTIAL NATIVE VEGETATION ON THIS SITE IS DOMINATED BY COOL SEASON GRASSES INCLUDING PRAIRIE JUNEGRASS, BEARDED WHEATGRASS, AND NEEDLEGRASSES. WARM SEASON GRASSES SUCH AS PLAINS MUHLY AND PRAIRIE DROPSEED ALSO ARE COMMON. SEDGES AND BLUGRASS OCCUR IN THE UNDERSTORY. FORBS SUCH AS YARROW, PRAIRIESMOKE, PUSSYTOES AND BEDSTRAW MAKE UP A SIGNIFICANT PORTION OF THE PLANT COMMUNITY.

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PERCENT COVER:

GROUND COVER AND STRUCTURE:

	% CANOPY COVER (VERTICAL VIEW)	AVERAGE HEIGHT (FT)	% BASAL AREA COVER
GRASSES AND GRASSLIKES	65	2.00	50
FORBS	15	1.50	10
CRYPTOGAMS	0	0.00	0
SHRUBS	5	3.00	3
TREES	0	0	0

PLANT COMMUNITY COMPOSITION AND PRODUCTION:

Herbaceous

Grasses and grasslikes

National Symbol	Common Name	Grp	% Composition by weight	Group % Allowable
POA++	BLUEGRASSES	0	0 to 5	0 to 0
STRI2	RICHARDSEN NEEDLEGRASS	1	0 to 0	5 to 15
STCO3	COLUMBIA NEEDLEGRASS	1	0 to 0	5 to 15
STVI4	GREEN NEEDLEGRASS	1	0 to 0	5 to 15
AGSU	BEARDED WHEATGRASS	2	0 to 0	10 to 20
AGTR	SLENDER WHEATGRASS	2	0 to 0	10 to 20
AGSM	WESTERN WHEATGRASS	2	0 to 0	10 to 20
SPAS	TALL DROPSEED	3	0 to 0	5 to 10
SPHE	PRAIRIE DROPSEED	3	0 to 0	5 to 10
DAIN	TIMBER OATGRASS	0	0 to 10	0 to 0
CAREX	SEDGES	0	10 to 25	0 to 0
MUCU3	PLAINS MUHLY	0	0 to 10	0 to 0

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Forbs

National Symbol	Common Name	Grp	% Composition by weight	Group % Allowable
ARLU	CUDWEED SAGEWORT	1	0 to 0	5 to 15
ARFR4	FRINGED SAGEWORT	1	0 to 0	5 to 15
ARCA12	GREEN SAGEWORT	1	0 to 0	5 to 15
ASER3	HEATH ASTER	1	0 to 0	5 to 15
RACO3	PRAIRIE CONEFLOWER	1	0 to 0	5 to 15
ACMI2	WESTERN YARROW	1	0 to 0	5 to 15
GUSA2	BROOM SNAKEWEED	1	0 to 0	5 to 15
PSES	BREADROOT SCURFPEA	1	0 to 0	5 to 15
PSAR2	SILVERLEAF SCURFPEA	1	0 to 0	5 to 15
PSTE3	SLIMFLOWER SCURFPEA	1	0 to 0	5 to 15
ECAN2	BLACK SAMSON	1	0 to 0	5 to 15
LIPU	DOTTED GAYFEATHER	1	0 to 0	5 to 15

Shrubs

National Symbol	Common Name	Grp	% Composition by weight	Group % Allowable
RHTR	SKUNKBUSH SUMAC	1	0 to 0	0 to 10
POFR4	SHRUBBY CINQUEFOIL	1	0 to 0	0 to 10

Production

Grasses and grasslikes: 75 to 95 % of total
 Forbs: 5 to 15 % of total
 Shrubs: 0 to 10 % of total
 Trees: 0 to 0 % of total
 Lichen community: 0.00 lbs/acre (NOT ANNUAL PRODUCTION)
 Moss community: 0.00 lbs/acre

Cover

Lichen community: 0 % cover
 Moss community: 0 % cover

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* PLANT GROWTH CURVES

ID	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
NUMBER: SD0001	0	0	5	15	30	25	5	5	10	5	0	0
NAME: 100% COOL SEASON SPECIES												
DESC: 100% OF PRODUCTION PROVIDED BY COOL SEASON SPECIES												
NUMBER: SD0002	0	0	5	15	25	20	15	10	7	3	0	0
NAME: 75% COOL, 25% WARM												
DESC: 75% OF PRODUCTION FROM COOL SEASON PLANTS, 25% FROM WARM SEASON PLANT												
NUMBER: SD0003	0	0	5	15	20	20	20	10	7	3	0	0
NAME: 50% WARM, 50% COOL SEASON												
DESC: 50 % OF PRODUCTION FROM COOL SEASON PLANTS, 50% FROM WARM SEASON												
NUMBER: SD0004	0	0	5	5	15	25	30	10	7	3	0	0
NAME: 75% WARM, 25% COOL SEASON												
DESC: 75% OF FORAGE PRODUCED BY WARM SEASON PLANTS, 25% FROM COOL SEASON												
NUMBER: SD0005	0	0	0	0	10	35	30	20	5	0	0	0
NAME: 100% WARM SEASON PLANTS												
DESC: 100% OF PRODUCTION IS FROM WARM SEASON PLANTS												

* TOTAL ANNUAL PRODUCTION (EXCELLENT CONDITION)

FAVORABLE 1700 TO 1900 lbs/acre

AVERAGE 1400 TO 1600 lbs/acre

UNFAVORABLE 1100 TO 1300 lbs/acre

LIVESTOCK DATA

* ESTIMATED STOCKING RATE

EXCELLENT 0 TO 0 AC/AU OR 0.5260 TO 0.6750 AUM/AC

GOOD 0 TO 0 AC/AU OR 0.3760 TO 0.5250 AUM/AC

FAIR 0 TO 0 AC/AU OR 0.2260 TO 0.3750 AUM/AC

POOR 0 TO 0 AC/AU OR 0.0750 TO 0.2250 AUM/AC

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* WILDLIFE SPECIES LIST:

WHITE-TAILED DEER	MULE DEER
ELK	
ANTELOPE	
	RACCOONS
	COYOTES
RED AND GRAY FOX	BOBCATS
GOLDEN EAGLES	RED-TAILED HAWK
	MUSKRAT
MINK	

* RANGE SITE DEGRADATION:

AS THIS SITE IS OVERUSED THE NEEDLEGRASSES WILL BE THE FIRST SPECIES TO DECREASE IN ABUNDANCE. WITH CONTINUED OVERUSE, BEARDED WHEATGRASS AND PRAIRIE JUNEGRASS WILL DECREASE AND ARE REPLACED BY BLUEGRASS, SEDGES AND FORBS. WITH SEVERE OVERUSE BARE GROUND MAY DEVELOP MAKING THE SITE SUBJECT TO EROSION.

* TYPICAL LOCATION:

TO BE ENTERED LOCALLY.

